

REMARKS

Applicant amends claims 1 and 5, and cancels claims 4 and 8 without prejudice or disclaimer.

Applicant respectfully traverses the rejection of claims 1-3, 5-7, and 9 under 35 U.S.C. § 103(a) over Ogisu et al. (Japan 08-092752), in view of Harada et al. (Japan 01-092377) and Asakura et al. (Japan 10-088361).

Amended claim 1 recites a pretreatment method comprising irradiating a resin material with ultraviolet rays while the resin material is in contact with a solution containing ozone dissolved in an organic or inorganic polar solvent other than water.

In contrast, Ogisu et al. discloses a method comprising etching a roughly shaped substrate, neutralizing the etched substrate, and then bringing the neutralized substrate into contact with "an aqueous ozone solution" (see translation of Ogisu et al., ¶ 7, emphasis added). Harada et al. discloses a method comprising applying "a mixture of ozone and oxygen or a mixture of ozone and air" to oxidize an organic compound and then exposing the oxidized compound to water etc. (see translation of Harada et al., ¶ 5, 6, emphasis added). Asakura et al. discloses a method comprising irradiating a polymer molded body with UV and then treating the irradiated body with "an alkaline solution" (see translation of Asakura et al., ¶ 7, emphasis added). Ogisu et al., Harada et al., and Asakura et al., taken alone or in combination, fail to disclose a solution containing ozone dissolved in an organic or inorganic polar solvent other than water. A *prima facie* case of obviousness has not been established.

Moreover, the use of a solution containing ozone dissolved in an organic or inorganic polar solvent other than water yields unexpected results. Table 1 of the specification (see specification, page 20) compares, *inter alia*, the results of pretreatment methods using ozone solutions with different solvents, including the nitric acid (inorganic polar solvent) in Example 3 and the ethanol (organic polar solvent) in Example 4. The results are commensurate in scope with the amended claims because the specification particularly points out that in Example 3 "the aqueous solution of ozone ... was replaced with nitric acid containing ozone" (see specification, ¶ 55), and in Example 4 "the aqueous solution of ozone ... was replaced with ethanol containing ozone" (see specification, ¶ 56). The results in Table 1 demonstrate that Examples 3 and 4 obtain some adhesion in 1 minute of pretreatment and achieve excellent adhesive strength in just 3 minutes, while other examples display no adhesion at all in 1 minute and only low adhesion in 3 minutes. The use of a solution containing ozone dissolved in an organic or inorganic polar solvent yields surprising and unexpected results and will save the industry a tremendous amount of time and energy. The claimed pretreatment method is, therefore, not obvious to a person of ordinary skill.

The Examiner, at page 6 of the Final Office Action, admitted that Ogisu et al. teaches "[a] first solution with the ozone can also contain an inorganic polar solvent – water" (emphasis added). The Examiner, therefore, recognized that Ogisu et al. does not teach an organic or inorganic polar solvent "other than water," as claimed.

Entry of this amendment after a final action is proper in order to place the claims in condition for allowance or in better form for appeal. Moreover, since the Examiner

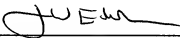
already has searched the inorganic polar solvent, citing the teaching of water in Ogisu et al., no further search should be necessary. Applicant requests entry of this Amendment, reconsideration of the pending claims, and issuance of a Notice of Allowance.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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